

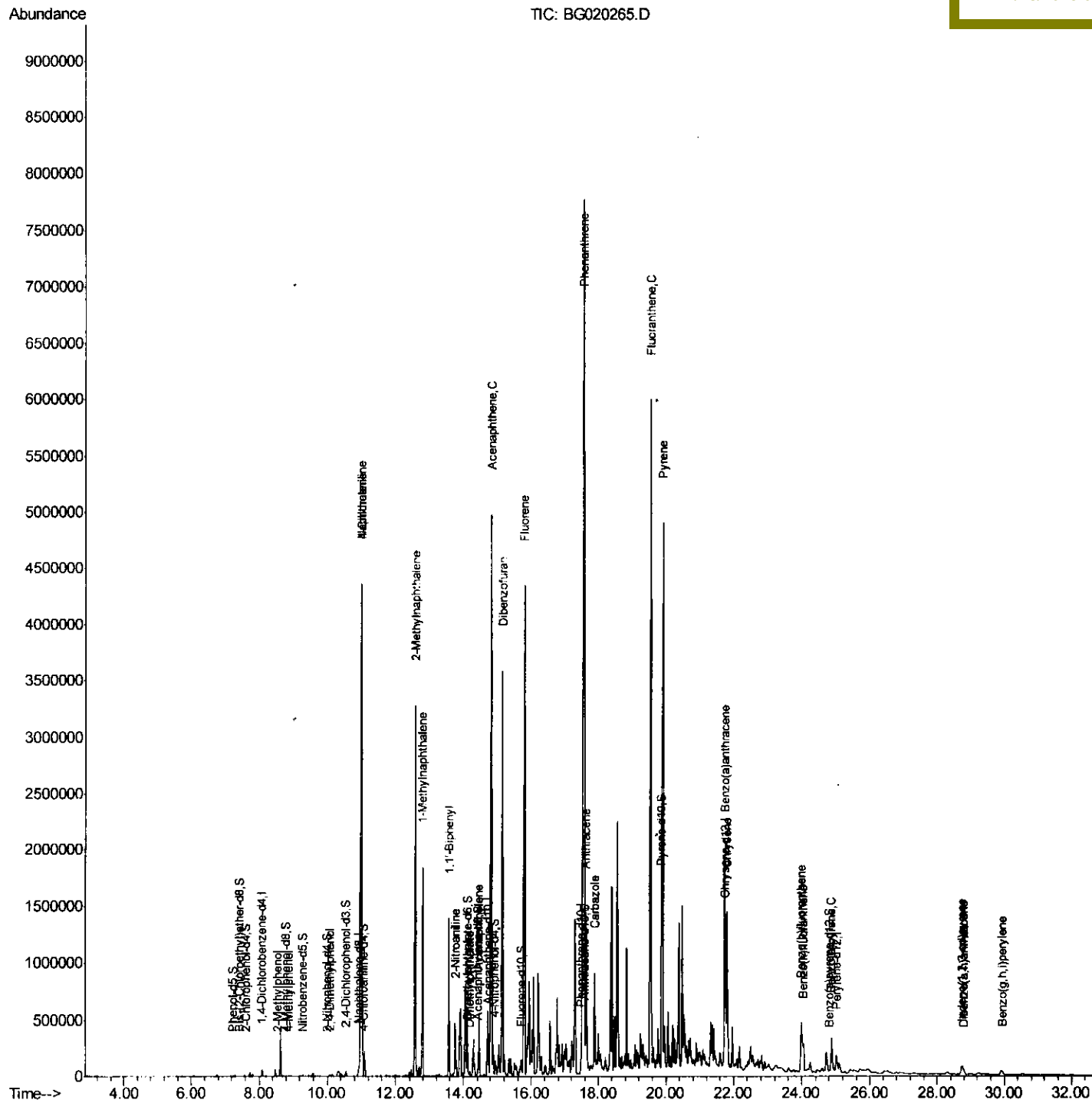
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
Data File : BG020265.D  
Acq On : 18 Dec 2015 4:01  
Operator : UM/SJ  
Sample : G4767-22DL 10X  
Misc :  
ALS vial : 14 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
D9N44DL

Quant Time: Dec 18 08:28:29 2015  
Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
Quant Title : SVOA CALIBRATION  
QLast Update : Fri Dec 18 02:40:02 2015  
Response via : Initial Calibration

Manual Integrations  
APPROVED

MMdadoda  
12/18/2015 6:20:27 PM



# Quantitation Report (Qedit)

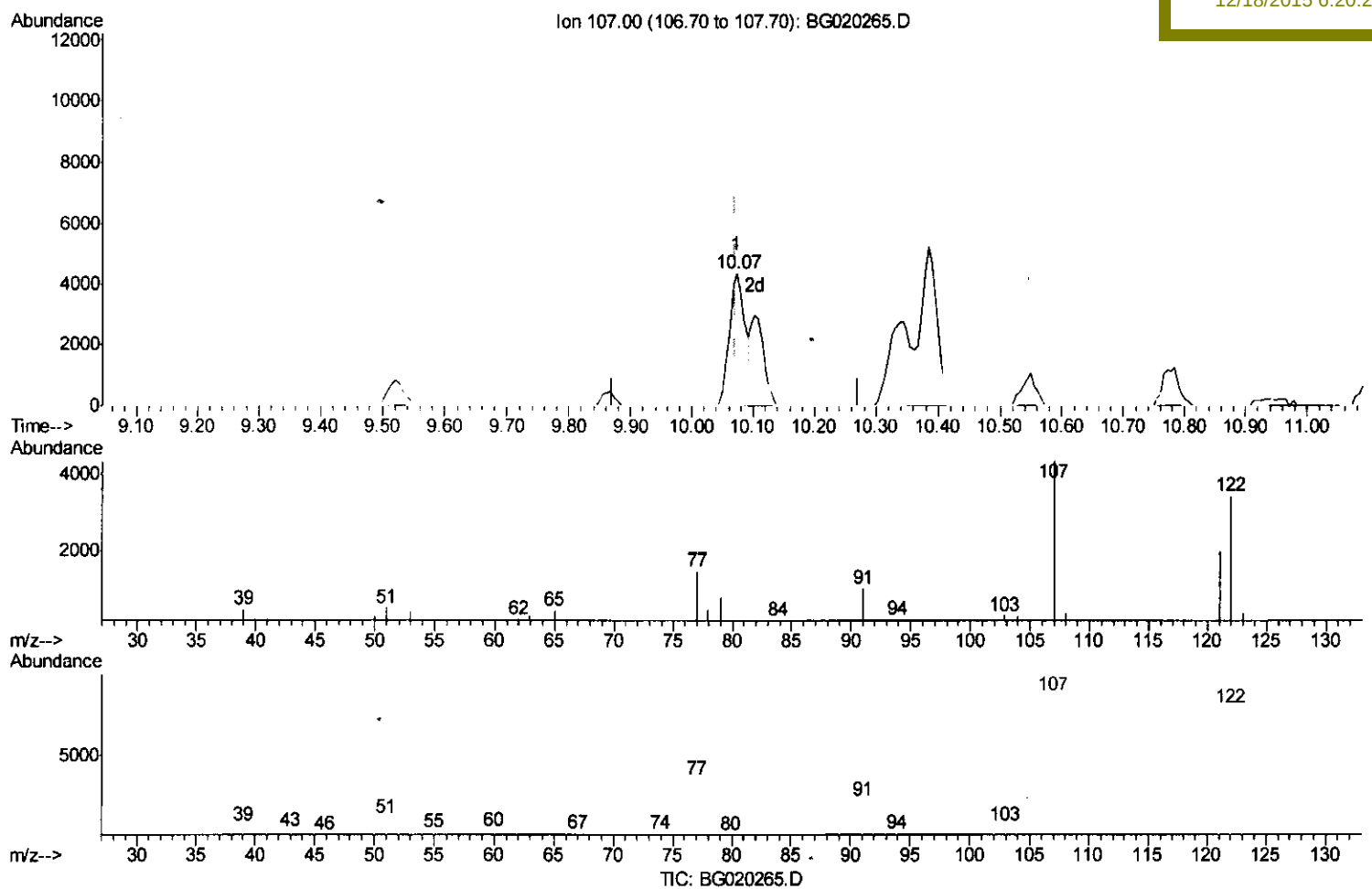
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration

Manual Integrations  
 APPROVED

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(24) 2,4-Dimethylphenol

10.073min (+0.002) 4.09ng/ul

response 7564

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 107.00 | 100   | 100   |
| 121.00 | 48.70 | 46.19 |
| 122.00 | 77.60 | 79.17 |
| 0.00   | 0.00  | 0.00  |

# Quantitation Report (Qedit)

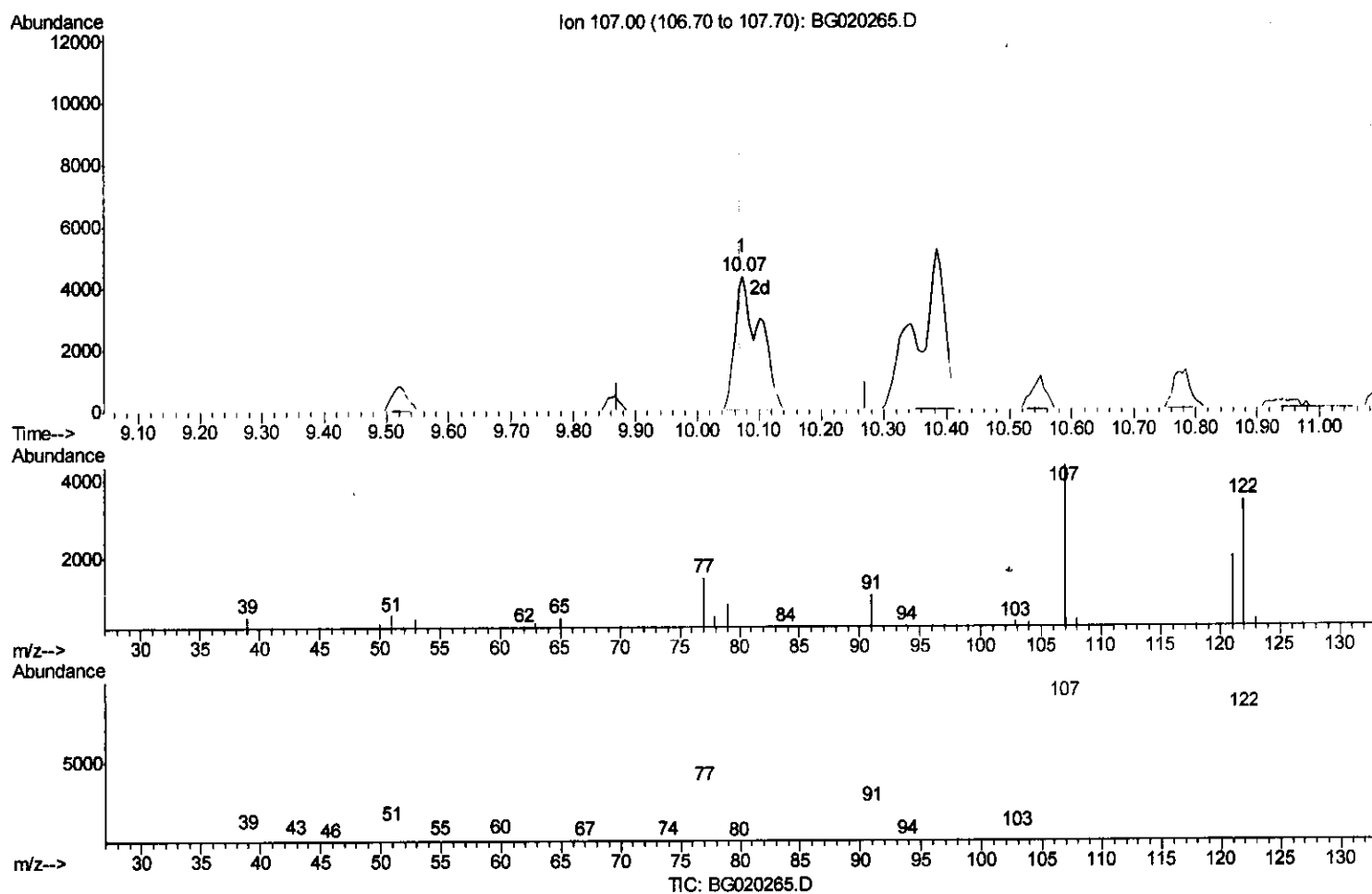
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc. :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Manual Integrations  
 APPROVED

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 12/18/2015 6:20:27 PM

Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration



(24) 2,4-Dimethylphenol

10.073min (+0.002) 6.53ng/ul m U.M  
 response 12086 12/21/15

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 107.00 | 100   | 100   |
| 121.00 | 48.70 | 46.19 |
| 122.00 | 77.60 | 79.17 |
| 0.00   | 0.00  | 0.00  |

# Quantitation Report (Qedit)

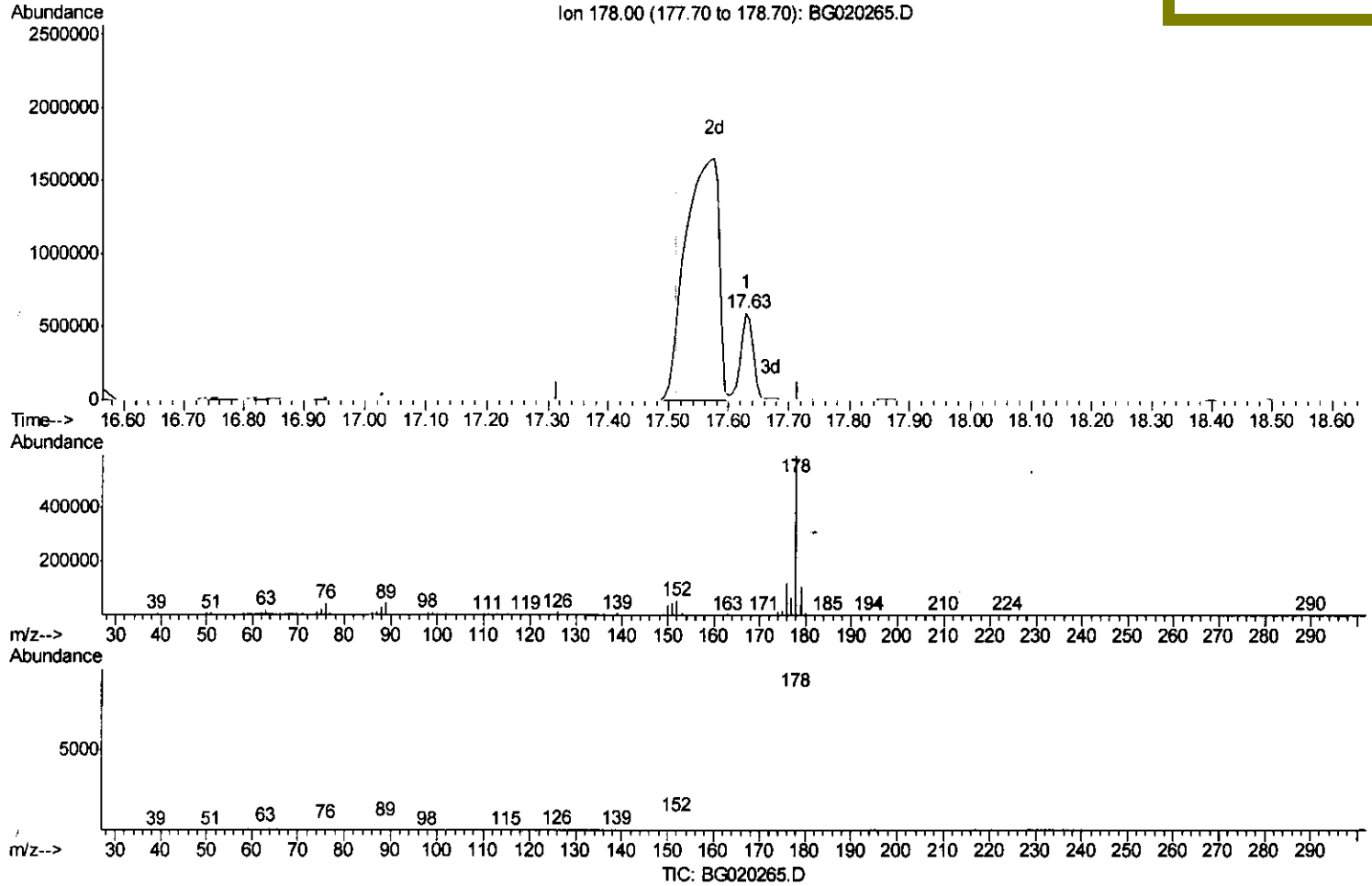
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
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Manual Integrations  
 APPROVED

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(70) Phenanthrene

17.629min (+0.114) 116.06ng/ul

response 850594

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 178.00 | 100   | 100   |
| 179.00 | 16.10 | 17.78 |
| 176.00 | 19.10 | 20.12 |
| 0.00   | 0.00  | 0.00  |

# Quantitation Report (Qedit)

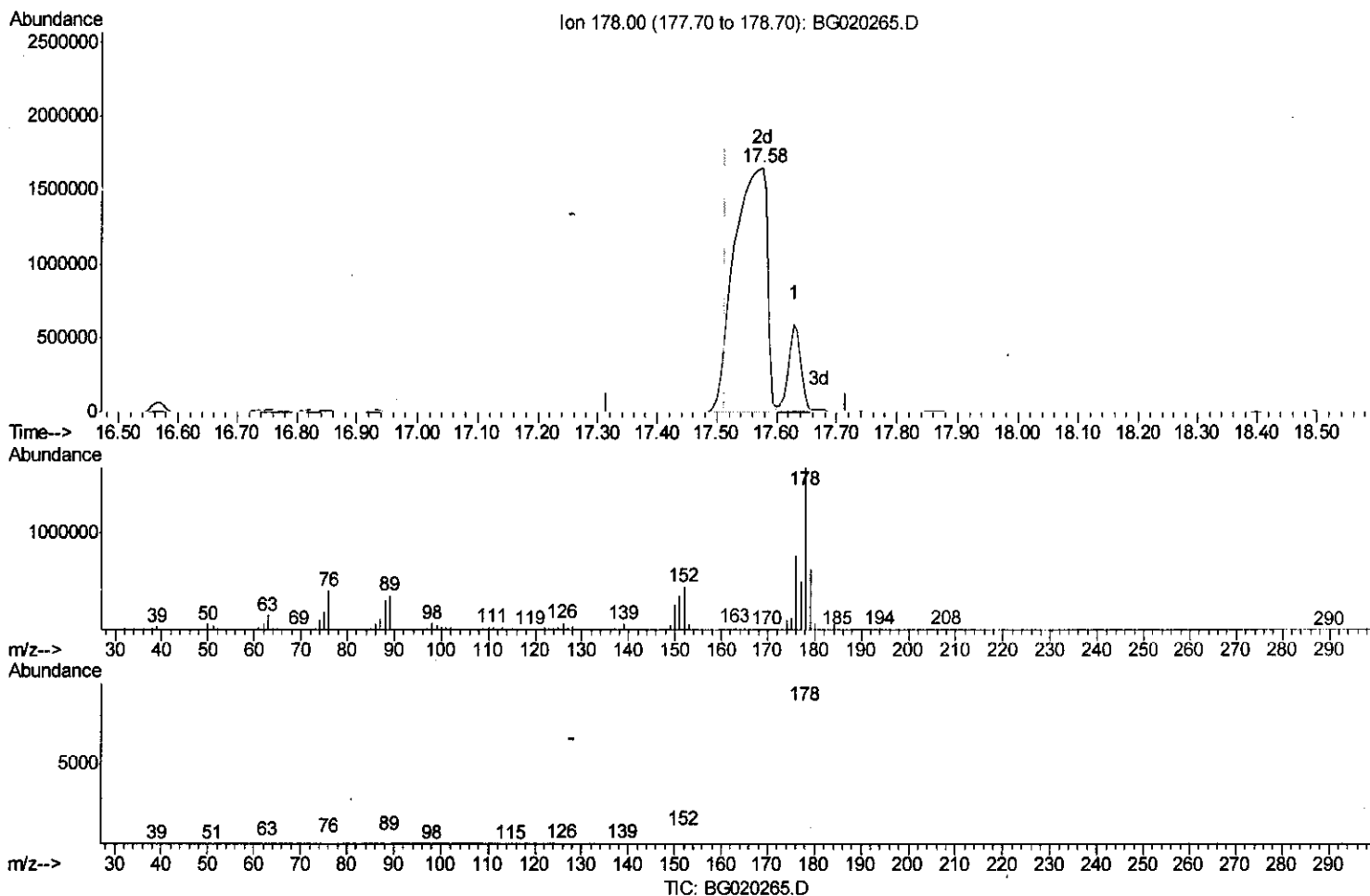
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Manual Integrations  
 APPROVED

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 12/18/2015 6:20:27 PM

Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
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(70) Phenanthrene

17.576min (+0.061) 862.43ng/ul m U.M

response 6320444

Ion Exp% Act%

178.00 100 100

179.00 16.10 37.97#

176.00 19.10 45.70#

0.00 0.00 0.00

12/21/15

# Quantitation Report (Qedit)

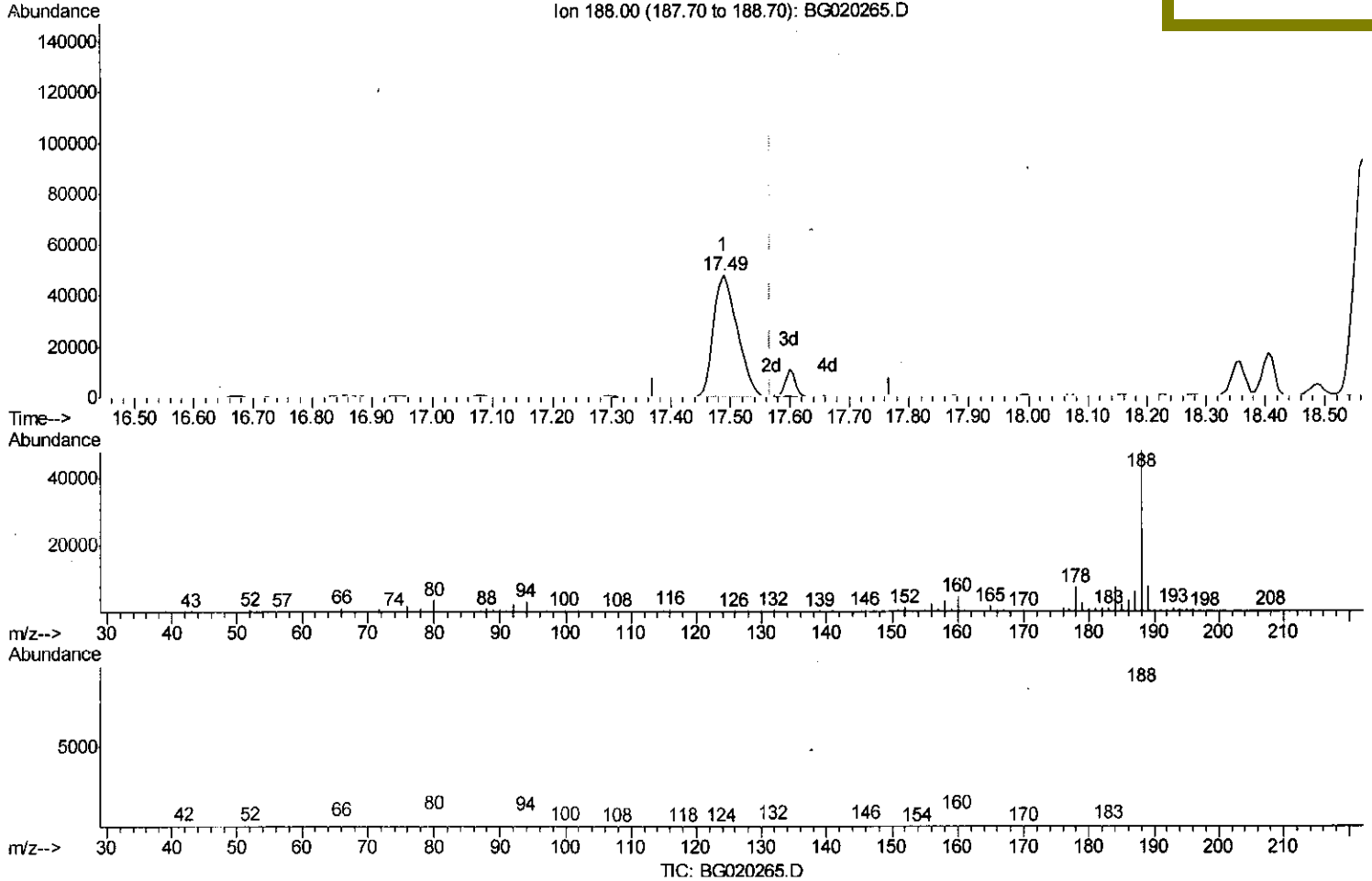
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Manual Integrations  
 APPROVED

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Quant Time: Dec 18 07:49:25 2015  
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 Quant Title : SVOA CALIBRATION  
 Qlast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration



(71) Anthracene-d10 (S)

17.488min (-0.080) 21.70ng/ul

response 133983

| Ion    | Exp% | Act% |
|--------|------|------|
| 188.00 | 100  | 100  |
| 94.00  | 7.70 | 6.68 |
| 80.00  | 7.50 | 7.70 |
| 0.00   | 0.00 | 0.00 |

# Quantitation Report (Qedit)

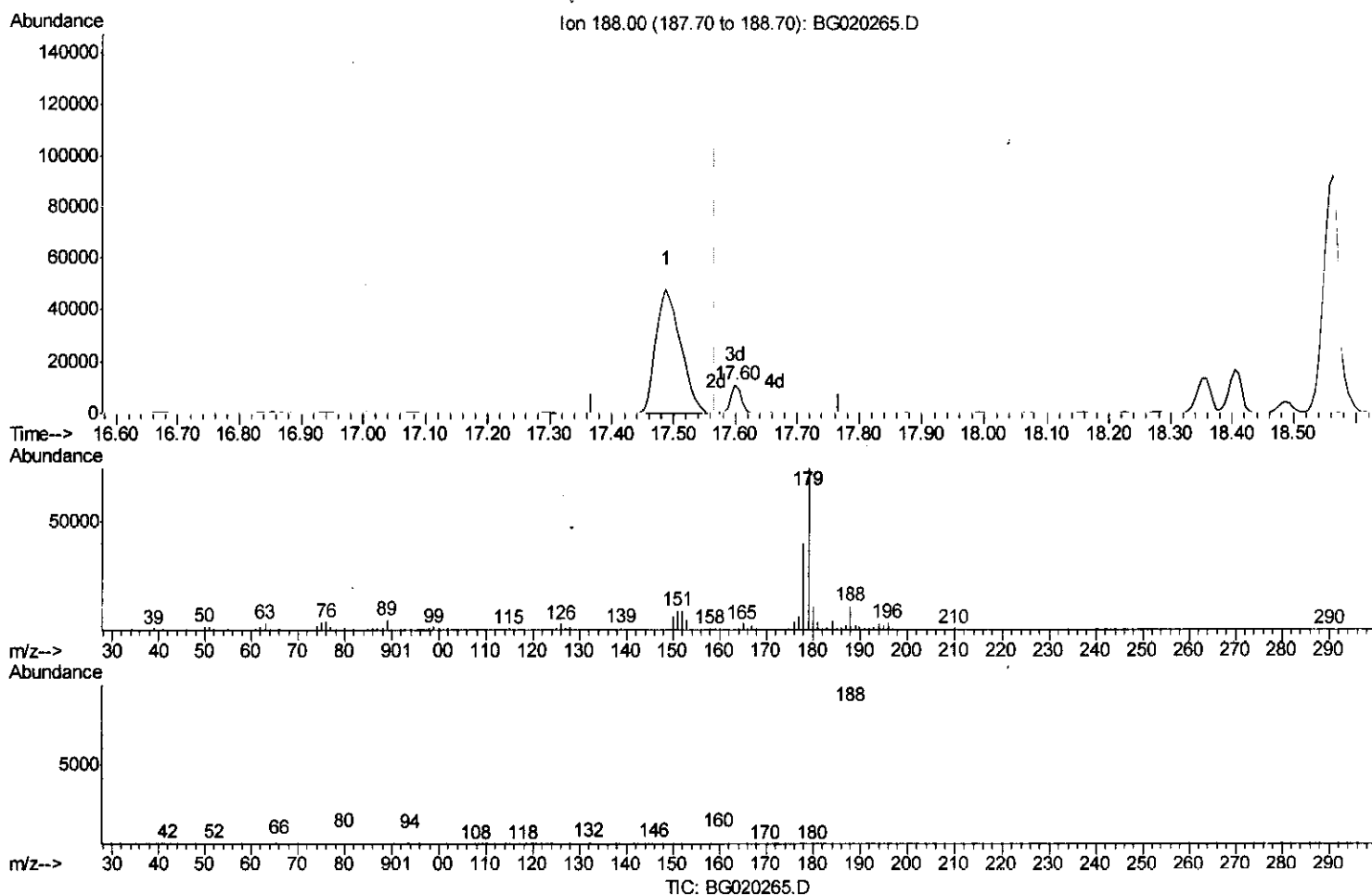
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Manual Integrations  
 APPROVED

MMdadoda  
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Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration



(71) Anthracene-d10 (S)

17.599min (+0.031) 2.09ng/ul m

response 12896

Ion Exp% Act%

188.00 100 100

94.00 7.70 8.38

80.00 7.50 10.46#

0.00 0.00 0.00

U.M  
 12/21/15

# Quantitation Report (Qedit)

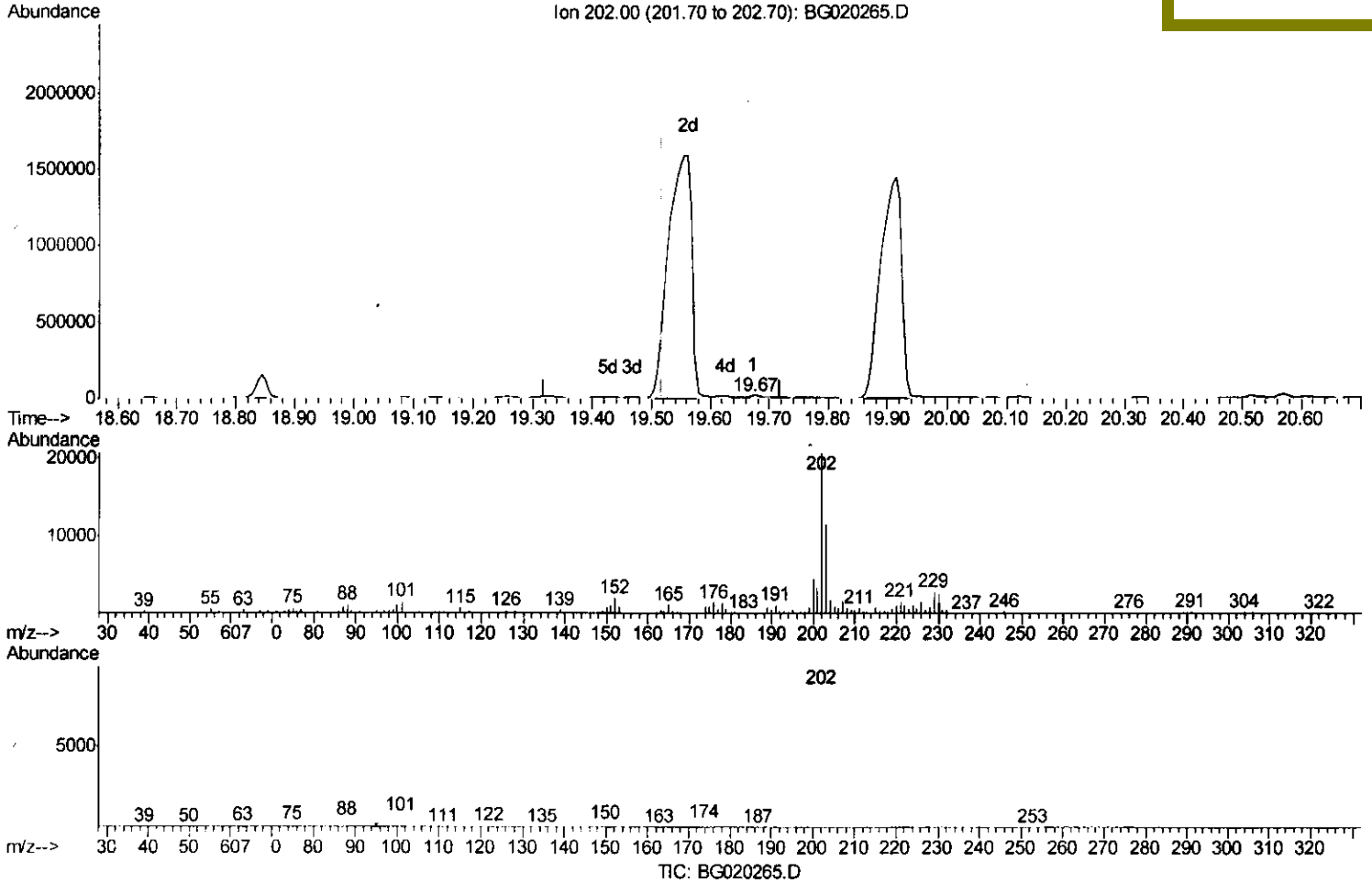
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration

Manual Integrations  
 APPROVED

MMdadoda  
 12/18/2015 6:20:27 PM



(77) Fluoranthene (C)

19.673min (+0.155) 2.73ng/ul

response 23340

| Ion    | Exp% | Act% |
|--------|------|------|
| 202.00 | 100  | 100  |
| 101.00 | 7.80 | 7.66 |
| 100.00 | 6.40 | 5.36 |
| 0.00   | 0.00 | 0.00 |

# Quantitation Report (Qedit)

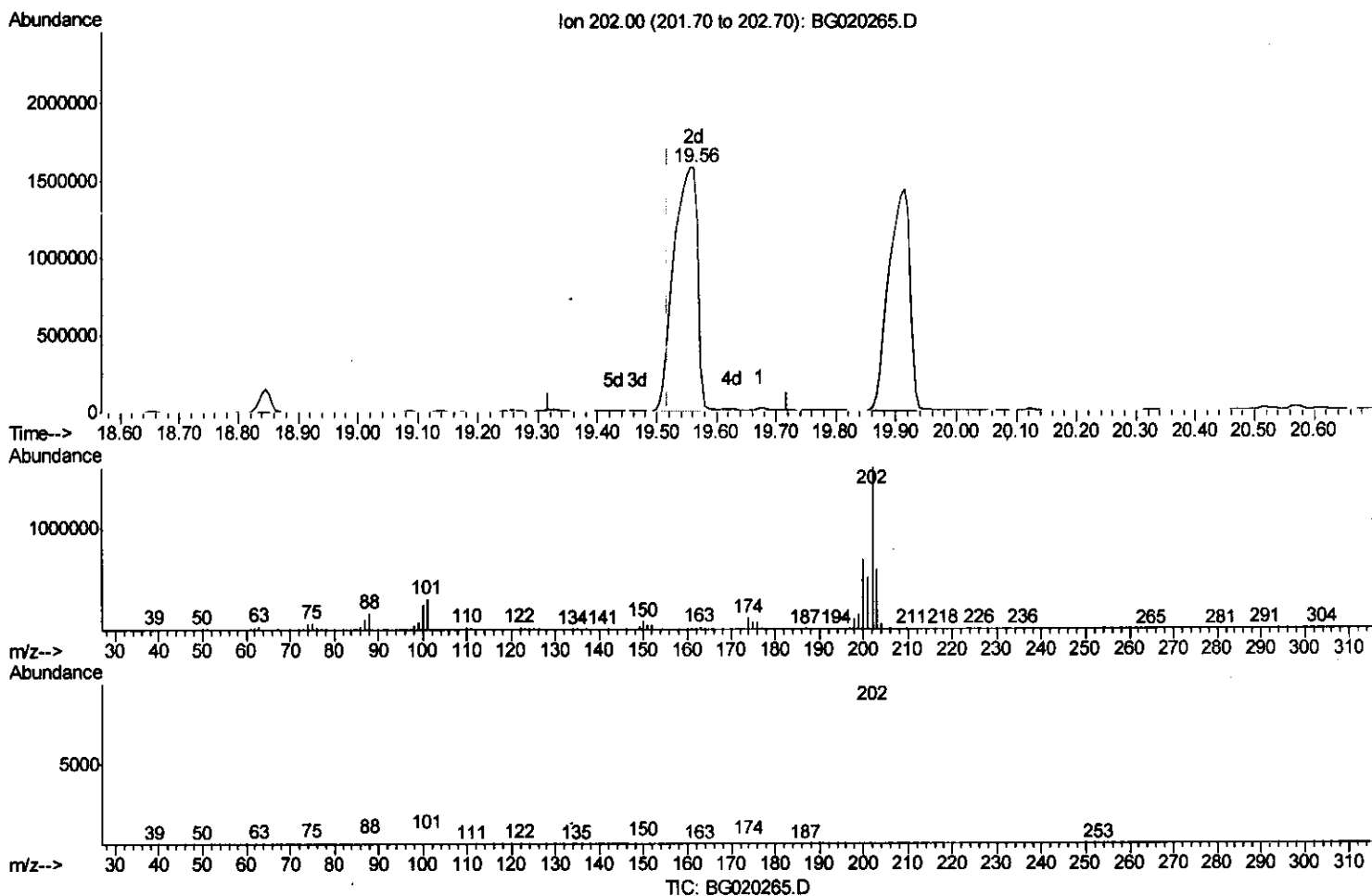
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Manual Integrations  
 APPROVED

MMdadoda  
 12/18/2015 6:20:27 PM

Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration



(77) Fluoranthene (C)

19.562min (+0.043) 516.40ng/ul m

response 4422979

Ion Exp% Act%

202.00 100 100

101.00 7.80 19.24#

100.00 6.40 15.82#

0.00 0.00 0.00

U.M  
 12/21/15

# Quantitation Report (Qedit)

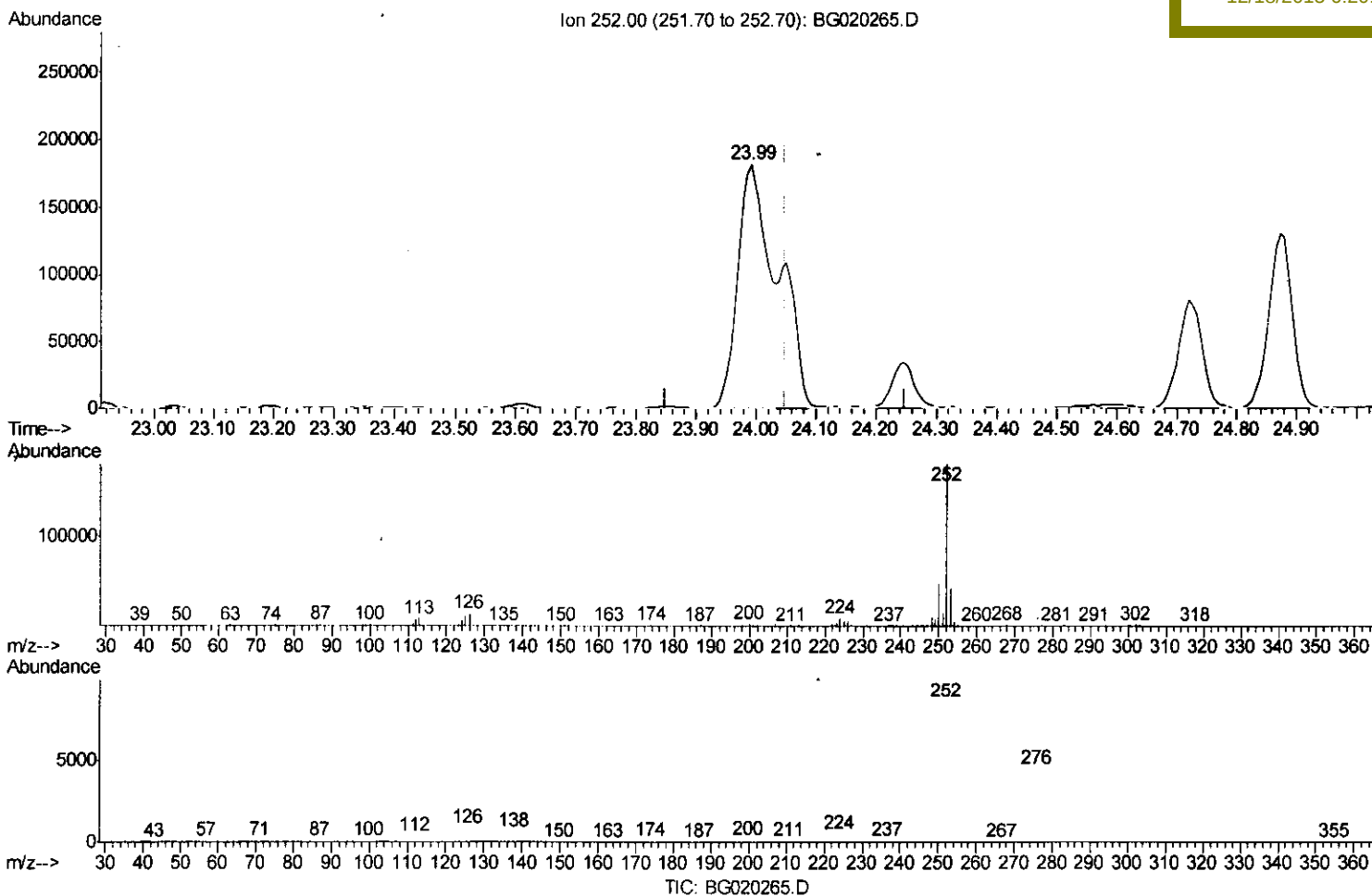
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
 D9N44DL

Manual Integrations  
 APPROVED

MMdadoda  
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Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration



(89) Benzo(k)fluoranthene

23.992min (-0.057) 64.51ng/ul

response 621849

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 252.00 | 100   | 100   |
| 253.00 | 22.40 | 23.20 |
| 125.00 | 7.20  | 6.57  |
| 0.00   | 0.00  | 0.00  |

# Quantitation Report (Qedit)

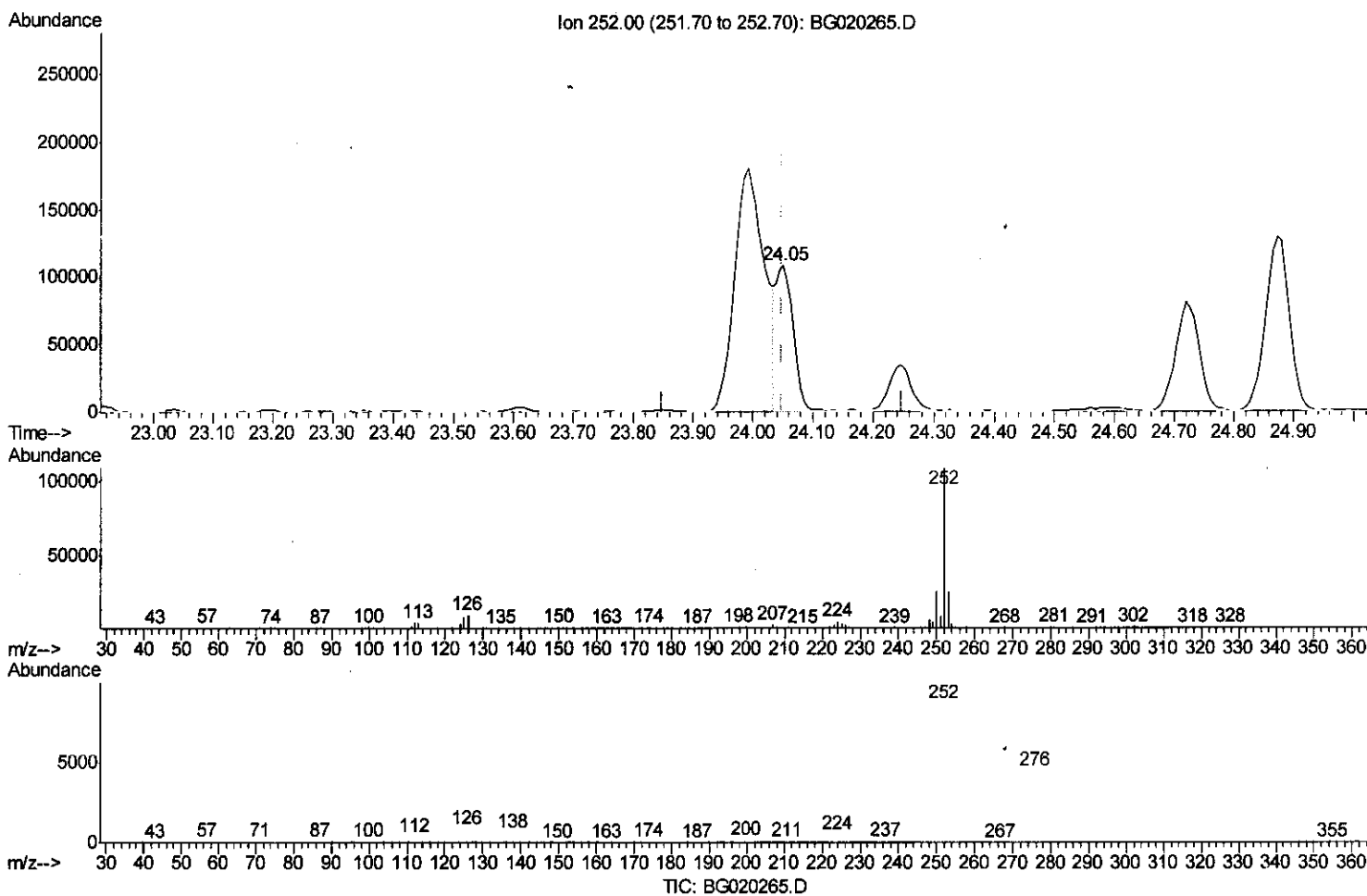
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampled :  
 D9N44DL

Manual Integrations  
 APPROVED

MMdadoda  
 12/18/2015 6:20:27 PM

Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration



(89) Benzo(k)fluoranthene

24.051min (+0.002) 22.67ng/ul m

response 218527

Ion Exp% Act%

252.00 100 100

253.00 22.40 22.69

125.00 7.20 7.02

0.00 0.00 0.00

U.M  
 12/21/15

## Quantitation Report (Qedit)

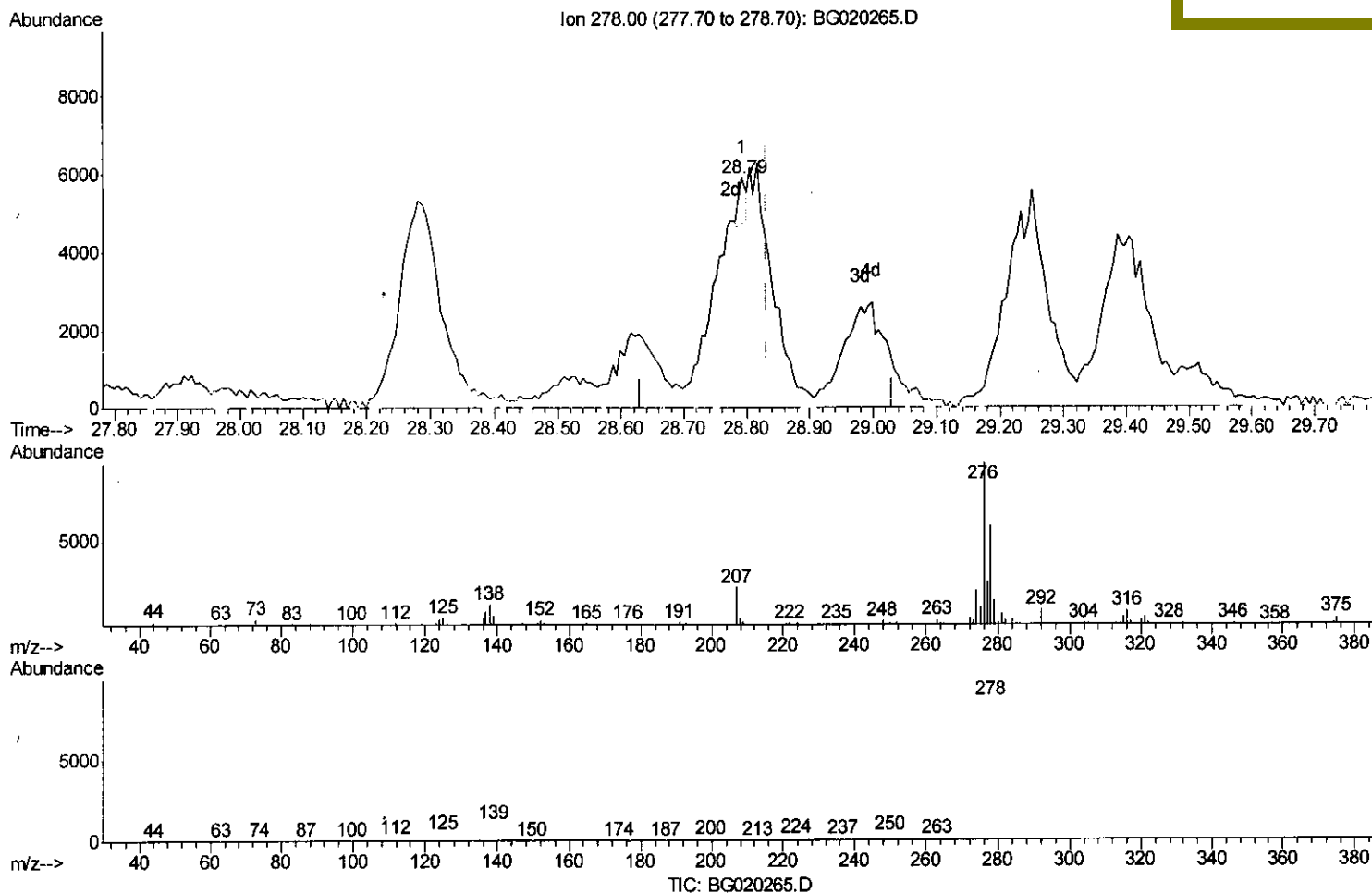
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
Data File : BG020265.D  
Acq On : 18 Dec 2015 4:01  
Operator : UM/SJ  
Sample : G4767-22DL 10X  
Misc :  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
BNA\_G  
ClientSampleId :  
D9N44DL

Manual Integrations  
APPROVED

MMdadoda  
12/18/2015 6:20:27 PM

Quant Time: Dec 18 07:49:25 2015  
Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
Quant Title : SVOA CALIBRATION  
Qlast Update : Fri Dec 18 02:40:02 2015  
Response via : Initial Calibration



(93) Dibenzo(a,h)anthracene

28.792min (-0.039) 0.10ng/ul

response 948

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 278.00 | 100   | 100   |
| 139.00 | 11.80 | 10.83 |
| 279.00 | 24.20 | 26.69 |
| 0.00   | 0.00  | 0.00  |

# Quantitation Report (Qedit)

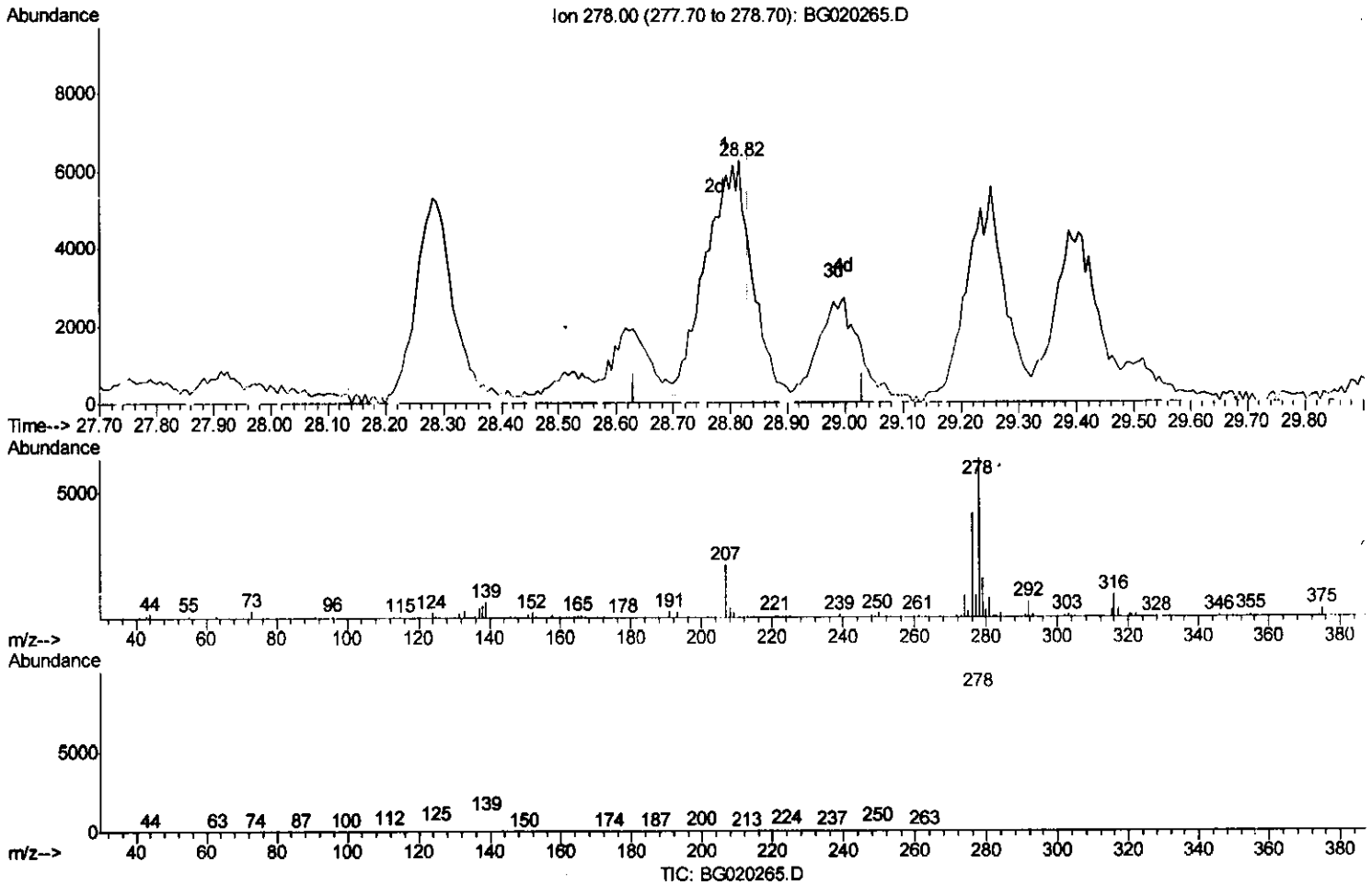
Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampled :  
 D9N44DL

Manual Integrations  
 APPROVED

MMdadoda  
 12/18/2015 6:20:27 PM

Quant Time: Dec 18 07:49:25 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration



(93) Dibenzo(a,h)anthracene

28.816min (-0.016) 3.55ng/ul m U.M

response 33394

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 278.00 | 100   | 100   |
| 139.00 | 11.80 | 12.26 |
| 279.00 | 24.20 | 26.39 |
| 0.00   | 0.00  | 0.00  |

## Quantitation Report (QT Reviewed)

Data Path : Z:\HPCHEM1\BNA\_G\Data\BG121815\  
 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 Client Sampled :  
 D9N44DL

Manual Integrations  
 APPROVED

MMdadoda  
 12/18/2015 6:20:27 PM

Quant Time: Dec 18 08:28:29 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration

| Internal Standards        | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Dichlorobenzene-d4 | 8.10  | 152  | 19911    | 20.00 | ng/ul | 0.00     |
| 18) Naphthalene-d8        | 10.92 | 136  | 87619    | 20.00 | ng/ul | 0.01     |
| 36) Acenaphthene-d10      | 14.73 | 164  | 64188    | 20.00 | ng/ul | 0.00     |
| 62) Phenanthrene-d10      | 17.49 | 188  | 133983   | 20.00 | ng/ul | 0.01     |
| 78) Chrysene-d12          | 21.76 | 240  | 173701   | 20.00 | ng/ul | 0.01     |
| 86) Perylene-d12          | 25.03 | 264  | 166891   | 20.00 | ng/ul | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |      |       |      |
|--------------------------------|-------|-----|--------|------|-------|------|
| 3) 1,4-Dioxane-d8              | 0.00  | 96  | 0      | 0.00 | ng/uL |      |
| 5) Phenol-d5                   | 7.25  | 99  | 2814   | 1.60 | ng/ul | 0.00 |
| 7) Bis-(2-Chloroethyl)ether-d  | 7.41  | 67  | 1771   | 1.69 | ng/ul | 0.00 |
| 9) 2-Chlorophenol-d4           | 7.62  | 132 | 2447   | 1.92 | ng/ul | 0.00 |
| 13) 4-Methylphenol-d8          | 8.80  | 113 | 2739   | 1.82 | ng/ul | 0.00 |
| 19) Nitrobenzene-d5            | 9.27  | 128 | 1545   | 2.26 | ng/ul | 0.00 |
| 22) 2-Nitrophenol-d4           | 9.99  | 143 | 1474   | 1.94 | ng/ul | 0.00 |
| 26) 2,4-Dichlorophenol-d3      | 10.53 | 165 | 2759   | 1.79 | ng/ul | 0.00 |
| 29) 4-Chloroaniline-d4         | 11.05 | 131 | 6474   | 3.74 | ng/ul | 0.00 |
| 44) Dimethylphthalate-d6       | 14.13 | 166 | 11664  | 2.25 | ng/ul | 0.00 |
| 47) Acenaphthylene-d8          | 14.43 | 160 | 11549  | 1.91 | ng/ul | 0.00 |
| 52) 4-Nitrophenol-d4           | 14.92 | 143 | 2740   | 2.94 | ng/ul | 0.00 |
| 58) Fluorene-d10               | 15.73 | 176 | 9841   | 2.09 | ng/ul | 0.00 |
| 63) 4,6-Dinitro-2-methylphenol | 0.00  | 200 | 0      | 0.00 | ng/ul |      |
| 71) Anthracene-d10             | 17.60 | 188 | 12896m | 2.09 | ng/ul | 0.03 |
| 79) Pyrene-d10                 | 19.86 | 212 | 15666  | 1.94 | ng/ul | 0.00 |
| 90) Benzo(a)pyrene-d12         | 24.80 | 264 | 16418  | 1.97 | ng/ul | 0.00 |

## Target Compounds

|                          |       |     |          |        |        | Qvalue |
|--------------------------|-------|-----|----------|--------|--------|--------|
| 11) 2-Methylphenol       | 8.53  | 108 | 2469     | 1.72   | ng/ul# | 79     |
| 16) 4-Methylphenol       | 8.86  | 108 | 3514     | 2.21   | ng/ul  | 92     |
| 24) 2,4-Dimethylphenol   | 10.07 | 107 | 12086m   | 6.53   | ng/ul  |        |
| 28) Naphthalene          | 11.00 | 128 | 4201597  | 918.26 | ng/ul# | 71     |
| 30) 4-Chloroaniline      | 11.00 | 127 | 847757   | 480.24 | ng/ul# | 11     |
| 34) 2-Methylnaphthalene  | 12.58 | 142 | 1702266  | 487.05 | ng/ul  | 100    |
| 35) 1-Methylnaphthalene  | 12.79 | 142 | 859710   | 255.86 | ng/ul# | 95     |
| 41) 1,1'-Biphenyl        | 13.57 | 154 | 735143   | 151.81 | ng/ul  | 98     |
| 43) 2-Nitroaniline       | 13.76 | 65  | 3518     | 2.67   | ng/ul# | 40     |
| 45) Dimethylphthalate    | 14.18 | 163 | 5336     | 1.01   | ng/ul  | 98     |
| 48) Acenaphthylene       | 14.46 | 152 | 277193   | 43.19  | ng/ul# | 96     |
| 50) Acenaphthene         | 14.82 | 153 | 2581264  | 597.80 | ng/ul# | 89     |
| 54) Dibenzofuran         | 15.15 | 168 | 2531545  | 394.12 | ng/ul# | 80     |
| 59) Fluorene             | 15.80 | 166 | 2413006  | 467.81 | ng/ul# | 97     |
| 70) Phenanthrene         | 17.58 | 178 | 6320444m | 862.43 | ng/ul  |        |
| 72) Anthracene           | 17.63 | 178 | 851667   | 114.58 | ng/ul  | 95     |
| 75) Carbazole            | 17.88 | 167 | 549235   | 87.94  | ng/ul  | 97     |
| 77) Fluoranthene         | 19.56 | 202 | 4422979m | 516.40 | ng/ul  |        |
| 80) Pyrene               | 19.91 | 202 | 3522177  | 335.03 | ng/ul# | 76     |
| 83) Benzo(a)anthracene   | 21.74 | 228 | 1223776  | 120.74 | ng/ul  | 92     |
| 85) Chrysene             | 21.81 | 228 | 1024400  | 107.32 | ng/ul# | 93     |
| 88) Benzo(b)fluoranthene | 23.99 | 252 | 621849   | 61.91  | ng/ul  | 96     |
| 89) Benzo(k)fluoranthene | 24.05 | 252 | 218527m  | 22.67  | ng/ul  |        |

U.M  
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 12/21/15

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 Data File : BG020265.D  
 Acq On : 18 Dec 2015 4:01  
 Operator : UM/SJ  
 Sample : G4767-22DL 10X  
 Misc :  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 BNA\_G  
 ClientSampleId :  
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Manual Integrations  
 APPROVED

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Quant Time: Dec 18 08:28:29 2015  
 Quant Method : Z:\HPCHEM1\BNA\_G\METHODS\SOM02.2-EPA-BG121415.M  
 Quant Title : SVOA CALIBRATION  
 QLast Update : Fri Dec 18 02:40:02 2015  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 91) Benzo(a)pyrene         | 24.87 | 252  | 351888   | 36.96 | ng/ul | 98       |
| 92) Indeno(1,2,3-cd)pyrene | 28.76 | 276  | 111437   | 9.83  | ng/ul | 97       |
| 93) Dibenzo(a,h)anthracene | 28.82 | 278  | 33394m   | 3.55  | ng/ul | 97       |
| 94) Benzo(g,h,i)perylene   | 29.93 | 276  | 80308    | 8.64  | ng/ul | 97       |

U.M  
 12/21/15

(#) = qualifier out of range (m) = manual integration (+) = signals summed